AMENDMENTS TO THE CLAIMS

Following is a listing of all claims in the present application, which listing supersedes all previously presented claims:

Listing of Claims:

1. (Original) An ink-jet printhead, comprising:

an ink chamber to be filled with ink to be ejected;

a manifold, which supplies ink to the ink chamber;

an ink channel, which provides communication between the ink chamber and the manifold;

a nozzle through which ink is ejected from the ink chamber;

first and second heaters, which heat ink in the ink chamber to generate bubbles; and

a conductor, which is electrically connected to the first and second heaters and applies a current to the first and second heaters,

wherein the first and second heaters are positioned symmetrically around a center of the nozzle, and one of the first and second heaters is positioned adjacent to the ink channel.

2. (Original) The ink-jet printhead as claimed in claim 1, wherein a material used to form the first and second heaters is the same and a size of the first and second heaters is the same so the first and second heaters have a same resistance value.

3. (Original) The ink-jet printhead as claimed in claim 1, wherein the first and second heaters are formed of a resistance heating material selected from the group consisting of impurity-doped polycrystalline silicon, a tantalum-aluminum alloy, titanium nitride (TiN), and tungsten silicide (WSi).

4. (Original) An ink-jet printhead, comprising:

a substrate, an ink chamber to be filled with ink to be ejected being formed on an upper surface of the substrate, a manifold for supplying ink to the ink chamber being formed on a lower surface of the substrate, and an ink channel for providing communication between the ink chamber and the manifold being formed to be parallel to the upper surface of the substrate; and

a nozzle plate, which is stacked on the substrate and forms upper walls of the ink chamber and through which a nozzle is formed in a position corresponding to a center of the ink chamber, first and second heaters for heating ink in the ink chamber and generating bubbles and a conductor being electrically connected to the first and second heaters and applying a current to the first and second heaters,

wherein the first and second heaters are positioned symmetrically around a center of the nozzle, and one of the first and second heaters is positioned adjacent to the ink channel.

5. (Original) The ink-jet printhead as claimed in claim 4, wherein a material used to form the first and second heaters is the same and a size of the first and second heaters is the same so the first and second heaters have a same resistance value.

6. (Original) The ink-jet printhead as claimed in claim 4, wherein the first and second heaters are formed of a resistance heating material selected from the group consisting of impurity-doped polycrystalline silicon, a tantalum-aluminum alloy, titanium nitride (TiN), and tungsten silicide (WSi).

7. (Original) The ink-jet printhead as claimed in claim 4, wherein the first and second heaters are electrically connected in parallel.

8. (Original) The ink-jet printhead as claimed in claim 4, wherein the first and second heaters are electrically connected in series.

9. (Original) The ink-jet printhead as claimed in claim 4, wherein the nozzle plate includes a first passivation layer, a second passivation layer, and a third passivation layer, which are sequentially stacked on the substrate; the first and second heaters are formed between the first passivation layer and the second passivation layer; and the conductor is formed between the second passivation layer and the third passivation layer.

10. (Original) The ink-jet printhead as claimed in claim 9, wherein the nozzle plate further includes a heat dissipating layer, which is stacked on the third passivation layer and dissipates heat generated by the first and second heaters and heat remaining around the first and second heaters.

11. (New) The ink-jet printhead as claimed in claim 1, wherein the first heater is positioned adjacent to the ink channel, and

the first heater is positioned between the ink channel and the second heater.

12. (New) The ink-jet printhead as claimed in claim 1, wherein the ink channel communicates with the ink chamber through an opening in a side of the ink chamber, and a distance between the first heater and the opening is less than a distance between the second heater and the opening.

13. (New) The ink-jet printhead as claimed in claim 1, wherein the ink-jet printhead is configured such that ink entering the ink chamber from the ink channel passes the first heater before passing the second heater.

14. (New) The ink-jet printhead as claimed in claim 4, wherein the ink channel communicates with the ink chamber via an opening in the ink chamber, and

the first and second heaters are positioned asymmetrically with respect to the opening.

15. (New) An ink-jet printhead, comprising:

an ink ejection nozzle communicating with an ink chamber via a first opening in the ink chamber;

an ink channel communicating with the ink chamber via a second opening in the ink chamber, the ink channel coupled to a manifold; and

first and second heaters disposed proximate to the ink chamber, wherein:

the first and second heaters are disposed symmetrically about the first opening, and

the second opening is closer to the first heater than it is to the second heater.

16. (New) The ink-jet printhead as claimed in claim 15, wherein the first heater, the second heater, the first opening and the second opening are formed symmetrically with respect to a virtual line.

17. (New) The ink-jet printhead as claimed in claim 16, wherein the virtual line crosses, in sequence, the first opening, then the first heater, then the second opening, and then the second heater.

18. (New) The ink-jet printhead as claimed in claim 15, wherein the first and second heaters are configured to heat ink filled in the ink chamber to create bubbles, and bubbles created by the first heater are larger than bubbles created by the second heater.

19. (New) The ink-jet printhead as claimed in claim 18, wherein the ink-jet printhead is configured to collapse the bubbles when the first and second heaters are turned off, and bubbles created by the first heater collapse more quickly than bubbles created by the second heater.